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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/509,218	03/10/2005	Hans-Dieter Hille	13619-004US1	5136
24950 7590 09/22/2008 PPG INDUSTRIES INC INTELLECTUAL PROPERTY DEPT ONE PPG PLACE PITTSBURGH, PA 15272				
EXAMINER				
GILLESPIE, BENJAMIN				
ART UNIT		PAPER NUMBER		
1796				
MAIL DATE		DELIVERY MODE		
09/22/2008		PAPER		

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

### Office Action Summary

**Application No.**

10/509,218

**Applicant(s)**

HILLE ET AL.

**Examiner**

BENJAMIN J. GILLESPIE

**Art Unit**

1796

**Period for Reply** -- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 29 August 2008.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-12, 14, 16, 17, 19 and 20 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-12, 14, 16, 17, 19 and 20 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☒ Some \* c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO/SB/08)  
Paper No(s)/Mail Date \_\_\_\_\_
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date \_\_\_\_\_
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: \_\_\_\_\_

***Continued Examination Under 37 CFR 1.114***

1. A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on 8/29/08 has been entered.

***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

2. Claims 1-12, 14, 16-17, and 19-20 are rejected under 35 U.S.C. 103(a) as being unpatentable over Lamers et al Patent Application Publication US 2002/0114955 A1 in view of Vandervoorde et al ('256). Lamers et al teach an aqueous coating composition and a method for production comprising the reaction product of polyisocyanate, compounds having at least one primary or secondary amino group with one hydroxyl group, and one anhydride, which is reactive toward hydroxyl groups of other reactants (Paragraphs 23-25, and 27-28).

3. In particular, the polyisocyanate contain two free NCO groups, no OH groups, and react with polyether or polyester polyol to form a prepolymer having NCO groups that can be further modified by alkoxypoly(oxyalkylene) alcohol (Paragraphs 66-68, 91, and 121). The compounds having one primary or secondary amino group with one hydroxyl group consist of diethanolamine and/or diisopropanolamine, i.e. said compounds contain 2 to 6 carbons, at least

one secondary NH group, and are reactive with NCO compounds via nitrogen atom thereby forming a urea bond (Paragraph 95). Lamers et al also disclose that anhydride present consists of trimellitic anhydride, and that the resultant polyurethane has a molecular overlapping the weight range claimed of 500 to 10,000, more specifically 1,000 to 4,000 (Paragraphs 97-98, and 108).

4. The aqueous polyurethane coating can be cured with melamine resin at temperatures ranging from 71°C to 177°C (Paragraphs 115, 127, 158). The specified range overlaps claim 16 of less than 145°C but not 177°C, however Lamers et al teaches that if needed, higher temperatures can be used as necessary to active cross-linking mechanisms. Therefore examiner takes the position that cross-linking temperatures may exceed 180°C, and important to note: the cure temperature can react as high as 204°C for electrodepositable coatings (Paragraph 165). However, while melamine resin is disclosed as a useful curing agent, Lamers et al fail to disclose what specific type is suitable, specifically hexamethoxymethyl melamine.

5. Vandervoorde et al teach a cured polyurethane aqueous coatings, and go on to disclose suitable curing agent consists of hexamethoxymethyl melamine, which is highly alkylated and is without NH groups (Column 11 lines 64-67, column 12 lines 1, 3-6). Therefore, it would have been obvious to one skilled in the art at the time of the invention to include the curing agent of Vandervoorde et al in the coating of Lamers et al since it is obvious to add a known ingredient for its known function; in re Linder 173 USPQ 356; in re DIAL et al 140 USPQ 244.

#### ***Response to Amendments/Arguments***

6. Applicants' arguments, filed 8/29/2008, with respect to the rejection of the claimed invention in view of Lamers et al under 35 U.S.C. 102(c) have been fully considered and are

persuasive. The statement of common ownership has been noted and the rejection under 102(e) has been withdrawn. However, the examiner maintains the rejection of claims 1-12, 14, 16-17, and 19-20 as being unpatentable over Lamers et al in view of Vandervoorde et al.

7. As previously discussed in the final office action mailed 2/11/2008, while Lamers et al may be disqualified as prior art under 102(e), it is still applicable prior art under 35 U.S.C. 102(a), which can not be disqualified under 35 U.S.C. 103(c). Therefore, until foreign priority is perfected by providing a translation of the foreign priority documents, the examiner maintains the rejection of claimed invention in view of the prior art.

#### ***Conclusion***

8. Any inquiry concerning this communication or earlier communications from the examiner should be directed to BENJAMIN J. GILLESPIE whose telephone number is (571)272-2472. The examiner can normally be reached on 8am-5:30pm. If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Vasu Jagannathan can be reached on 571-272-1119. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

9. Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would

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like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Rabon Sergent/

Primary Examiner, Art Unit 1796

B. Gillespie